

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

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1. (original) A method for reconfiguring a network of parallel identical functional elements tolerant to the faults of these functional elements, the network comprising said basic functional elements (P), spare functional elements (Sp), interconnecting elements (Cm) of these functional elements, and a control unit, said method being characterized in that it comprises:

- a step of positioning the functional elements of the logic network;
- a routing step of programming interconnecting elements on the physical network, by choosing a maximum number of interconnecting elements which can be passed between two neighboring processors using a shortest track search algorithm.

2. (original) The method according to claim 1, wherein:

- network functional element positioning sequence which is composed of a starting functional element and a sequence of functional elements including all functional elements is determined;
- for each of the functional elements, it is positioned tentatively starting with its logical position, then, if required in case of failure, in each of the positions located at a distance 1, distance 2, ... from the logical position of this functional element, a restriction being that one and only one spare position is to be used with respect to the possible

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positions of previously positioned functional elements, stopping when  $S+1$  positions have been tested,  $S$  being the number functional elements;

- if  $S+1$  positions have been tested without success, returning to the previous functional element in the positioning sequence and proceeding with the next position for this functional element.

3. (original) The method according to claim 2, wherein, when all functional elements have been positioned, it is checked for each network dimension that the logical sequence is followed for each functional element pair, if not, the positions of these functional elements are inverted.

4. (currently amended) The method according to claim 1, wherein ~~the said positioning sequence is defined like this: the step comprises~~ starting functional element is with the top left functional element, continuing with the following functional elements ~~are functional elements~~ to the right and below the ~~starting~~ previous functional element, ~~, and so on,~~ following a diagonal path.

5. (currently amended) The method according to claim 1, wherein the network is divided into functional element blocks, wherein said positioning step comprises ~~and a block positioning sequence is defined~~ starting with a starting block and going through all the blocks from one neighboring block to the next, the possible positions for the functional elements of

one block not including any logical position of the functional elements of previously positioned blocks.

6. (original) The method according to claim 1, wherein the functional elements are processors.

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